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IV.—THE OLD APOLLO TEMPLE AND LIVY XL, 51.

The ancient wall under Santa Maria in Campitelli which is now usually considered to belong to the podium of the old Apollo temple was described by Delbrück in 1903¹. At the end of his study he ventured to give an outline of the development of Roman building methods up to the Punic war, using as the cornerstone of his structure this very wall which he boldly assigned to 431 B. C., the date of the original temple. Since Delbrück, now generally recognized as the chief authority on early Roman construction, has in his later works continued to test the age of early buildings by comparing their technique with that of the Apollo temple, it may not be amiss to state that there are serious reasons for doubting his dating. This question, moreover, involves not only a sound method of dating the pre-literary monuments of Rome, but also the reading and interpretation of Livy XL, 51.

For measurements, plans, and descriptions Delbrück may in general be relied upon. However it must be noted that he occasionally misnames the stone of the lining, "sperone", (i. e. lapis Gabinus), a matter of some importance since the question of the date hinges upon the question of the materials involved; that he locates the temple on his plan too near the Theatre of Marcellus; and finally that he fails to notice that it is possible to estimate the thickness of the wall. Since the grey core of the wall is lined on both sides by a brown stone, and since the brown stone headers are fairly uniform in length, the thickness of the whole may be estimated by measuring through to the inner end of a block of the inner lining where it is exposed at a deep cutting in the wall. Estimating in this way, I found the wall to be about seven and one-half feet thick, a thickness which ought to preclude any doubt of its being a temple podium.

The wall is unique in construction. A core, consisting of low blocks of the flaky grey tufa ("cappellaccio") which was

¹ Der Apollotempel auf dem Marsfelde.

regularly quarried at the Lautumiae and elsewhere for the foundations of early temples, is lined on both sides with similar low blocks of a hard, fine-grained, brown tufa. That the flaky variety was regularly cut into low slabs (25-33 c) was due to the difficulty of procuring and handling large blocks of this easily-cleft material. That the far solider brown tufa was here for once cut to the same measure and system seems to me due to a restoration wherein the new material was shaped to fit into the spaces of the "cappellaccio" blocks which it replaced.

The striking fact is that this brown stone of the restoration proves upon careful examination to be none of the varieties obtainable in the hills on the left bank of the Tiber, although at the foot of the Capitoline hill, within a stone's throw of this very wall, there was in the fifth century an abundance of brown stone quite as good in quality as that used. The source of the brown tufa of the Apollo temple, however, is down the river, in the middle reaches of the south end of Monte Verde, a quarry which seems not to have been worked until the second century B. C. In fact the earliest datable structure in which I have as yet found it is the concrete podium of the Concord temple of 120 B. C. The restoration of the Apollo temple, therefore, should be placed in the second century, though probably earlier than 150 since concrete was not used in it.

Assigning Roman quarries to definite periods may seem to be a hazardous undertaking but it proves by no means impossible. In discussing the history of the Servian wall elsewhere ¹ I have offered a new method; here I can only say that after tracing the building stones of the Republican period to their sources I feel that certain general principles may be established. Until the time of the Gallic fire the Romans regularly used the flaky grey tufa that constitutes the lowest volcanic stratum in the Roman hills and that was quarried especially at the Lautumiae below the Arx. The capture of Veii and Fidenae placed at their disposal the solider and yet easily worked light-yellow tufas below and above Prima Porta, a stone which was barged down for the rebuilding of the Servian wall and which was used almost exclusively for a hundred and fifty years. Then this also fell into disfavor for exposed work because of its

¹ See *Am. Jour. Arch.*, 1918, 181.

failure to resist long weathering, and the Roman builders began at last to use the hard brown tufas of their own hills. However, the Capitoline and the Palatine were by that time so well occupied by buildings that their nearest ledges could not be used. The Romans accordingly resorted to the Aventine, the ledges near the Ponte Nomentano on the Anio, and those of Monte Verde on the right bank of the Tiber, as being the next most accessible hills, and these have been freely used ever since. It is the peculiar stone of Monte Verde, recognizable by the abundance of yellowish green particles, which the restorer of the Apollo temple used.

Livy, I think, will furnish the precise date of the restoration, if we may accept a passage upon which editors for more than a century have committed many unprovoked atrocities. Livy says (XL, 51, 3): Fulvius locavit . . . post Spei ad Tiberim aedem Apollinis Medici. The date is 179 B. C. Hermann began the mutilation of this inoffensive passage by deleting "Apollinis Medici". But the Apollo of the Campus was a healing god, was introduced *pro valetudine populi* (Livy, IV, 25, 3), was addressed by the Vestals as "Apollo Medice", and in the three-year pestilence that preceded the restoration of 179 he had received special devotions for the public health (Livy, XL, 37). Livy here gave him the distinguishing epithet and defined his temple as *post Spei ad Tiberim*¹ because the splendid *Aedes Apollinis in Palatio* recently built would otherwise have come to mind. The conjecture of Delbrück that an otherwise unknown temple may be meant is disposed of by Asconius' statement that the temple *extra Portam Carmentalem inter forum holitorium et Circum Flaminium* was the only temple of Apollo in existence in Cicero's day (Asc. ad Cic. in Tog. Cand.). Other editors² and archaeologists propose other emendations, objecting that if the well-known Apollo temple was restored in 179 we ought to have some notice of its previous destruction. Our sources for the second century, however, are never so full that we dare assume an error whenever they fail

¹ The temple of *Spei ad Tiberim* also needed a full name to distinguish it from the well-known *Spei Vetus* on the Esquiline.

² Preller, Roscher and Zingerle read *aliam* (sc. porticum) . . . post Spei ad Tiberim <et ad> aedem Ap. Med.; Becker and Weissenborn-Müller: *aliam* (sc. porticum) . . . post Spei ab Tiberi ad aedem Ap. Med.

to satisfy the avid curiosity of modern scholars. As for the objection to the word *locavit* when a mere restoration is involved, it will be remembered that Augustus in his *Res Gestae*¹ used the word *feci* of temples which he apparently only restored. It is indeed wholly probable that after the long pestilence of 182-180 the people insisted upon a complete satisfaction of their god of healing, and that the next succeeding censors restored the temple even though it was still upon its podium. I think therefore that the MS reading of Livy XL, 51, 3 should be restored, and also that the wall of the Apollo temple which now exists dates not from 431 but from the building operations of 179 B. C. If this be true, we must reject histories of Republican construction which are based upon the supposition that the technique of this wall is representative of fifth century work.

TENNEY FRANK.

BRYN MAWR COLLEGE.

¹ Cf. for example chapter XIX: aedes Jovis Feretri (cf. Nepos, Att. 20), aedes Minervae, etc. in Aventino.